

REMARKS

Claims 11, 13-17, and 21-31 are pending. Claims 11 and 13-17 have been amended, claims 1-10, 12, and 18-20 have been canceled, and new claims 21-31 have been added to recite additional features of the embodiments disclosed in the specification. Applicants submit that the changes to the claims are sufficient to overcome the objections in the Office Action.

In the Office Action, claim 1 was rejected under 35 USC § 102(b) for being anticipated by the Okuda publication and the remaining claims were rejected under 35 USC § 103(a) for being obvious in view of an Okuda-Shin combination. Applicants request the Examiner to withdraw these rejections for the following reasons.

Claim 1 has been amended to recite that “a plurality of cooling fins project from one side of respective ones of the pass-through holes toward an outside of the outer rotor,” and that “at least a portion of the side wall circumscribes the cooling fins and is formed with a height that is at least substantially equal to or greater than that of the cooling fins.” (See, for example, Figure 4 of the application drawings for support). These features are not taught or suggested by the cited references, whether taken alone or in combination.

The Okuda publication discloses a rotor having a bottom 32, a side wall 33, and a magnet 34 located on an inner surface of the side wall. Okuda also discloses that the bottom is elevated above a plurality of cooling fan blades 43. (See Figure 6).

However, Okuda does not teach or suggest an arrangement of cooling fins that project from one side of respective ones of the pass-through holes. Also, because Okuda does not teach or suggest this cooling fin arrangement, it is submitted that Okuda also does not teach or

suggest a circumscribing portion of a side wall having a height at least substantially equal to or greater than that of the arrangement of cooling fins recited in claim 11. That is, the fan blades of Okuda do not project in the same manner as recited in claim 11.

The Shin patent also fails to teach or suggest these features, i.e., Shin discloses cooling fins 517 projecting from a bottom of a rotor. However, Shin does not teach or suggest that the rotor includes at least a portion of a side wall that circumscribes the cooling fins and is formed with a height that is at least substantially equal to or greater than that of the cooling fins.

Rather, as shown in Figure 4A, fins 517 project from the bottom of the Shin rotor without being circumscribed or otherwise protected by a portion of its side wall projecting from the bottom of the rotor. As a result, the fins of Shin are susceptible to bending or damage when multiple rotors are stacked one on top of the other. The claimed embodiments overcome these and other drawbacks.

Applicants submit that claim 11 and its dependent claims are allowable over the Okuda publication, whether taken alone or in combination with the Shin patent.

New claims 21-31 have been added to the application.

Claim 21 recites that the magnets are mounted on a first portion of the side wall that extends in a first direction relative to the bottom and the cooling fins extend in a second direction relative to the bottom. These features are not taught or suggested by the cited references, whether taken alone or in combination.

Claim 22 recites that the second direction is opposite to the first direction. These features are not taught or suggested by the cited references, whether taken alone or in combination.

Claim 23 recites that the first portion of the side wall extends on one side of the bottom and a second portion of the side wall extends on an opposing side of the bottom, and that a height of the second portion of the side wall is at least substantially equal to or greater than a height of the cooling fins. These features are not taught or suggested by the cited references, whether taken alone or in combination.

Claim 24 recites that a surface of each of the cooling fins located opposite the pass-through holes lies in substantially a same plane as an end surface of the second portion of the side wall. These features are not taught or suggested by the cited references, whether taken alone or in combination.

Claim 25 recites that a bottom surface of the magnets are supported by a surface of the first portion of the side wall, said surface of the first portion of the side wall spaced from the bottom by a predetermined distance. These features are not taught or suggested by the cited references, whether taken alone or in combination.

Claim 26 recites that a first cooling fin projects at a first acute angle relative to the bottom and an adjacent second cooling fin projects at a second acute angle relative to the bottom. These features are not taught or suggested by the cited references, whether taken alone or in combination.

Claim 27 recites that the first and second cooling fins project in directions that are at least substantially parallel to one another. These features are not taught or suggested by the cited references, whether taken alone or in combination.

Claim 28 recites that the first and second cooling fins project in opposite directions. These features are not taught or suggested by the cited references, whether taken alone or in combination.

Claim 29 recites that the first acute angle is at least substantially same as the second acute angle. These features are not taught or suggested by the cited references, whether taken alone or in combination.

Claim 30 recites that the first and second acute angles are complementary angles. These features are not taught or suggested by the cited references, whether taken alone or in combination.

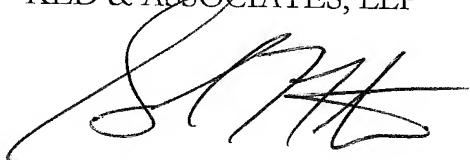
Claim 31 recites the cooling fins are spaced from the second portion of the side wall. These features are not taught or suggested by the cited references. For example, the fan blades of Okuda contact the portion of the sidewall that extends below the bottom of its rotor.

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. Favorable consideration and prompt allowance are earnestly solicited.

Reply to Office Action of April 8, 2009

To the extent necessary, a petition for an extension of time under 37 CFR § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,
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